BHSF 6.9.1.2

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To: jstefano@ch2m.com

cc: Marykay Voytilla/R10/USEPA/US@EPA, Maryjane Nearman/R10/USEPA/US@EPA

Subject: Response to mine dewatering comments

Attached are Eric's suggested text for comments discussed on the teleconference. Sharon Quiring reviewed Terragraphics comments and felt the response covered the comment well.

let me know if you need additional text on comments or if would like us to look at the final set of responses.

(See attached file: BH Mine comments_Doyle.doc)

BH Mine comments_Do

Response to comment 1.11:

Yes, the release of untreated mine water would pose a threat both to human health and the environment. Untreated mine water entering the South Fork Coeur d'Alene River would raise surface water concentrations of several metals to several thousand ug/L. These concentrations would certainly be lethal to resident fish populations and would probably preclude fish migration. These concentrations would also be in violation of the Clean Water Act, the federal policy created to regulate surface water quality for the protection of human health and the environment.

Response to comment 6.5:

Fish populations are relatively healthy in the reaches of the South Fork below Pinehurst in comparison to other areas of the river. High water hardness conditions present below Smelterville lessen the toxic effects of metals in the downstream reaches of the river to a certain degree (the presence of dissolved organics in this area may also help), and some movement of fish into the mouth from the North Fork Coeur d'Alene River can be expected to occur. It is important to note that some native fish species are not represented in the South Fork despite these observations. Sculpin, native fish species that live on stream bottoms and are fed upon by large trout, are virtually absent from the South Fork downstream of Mullan. Sculpin populations are absent or greatly reduced in areas where metals contamination is present.

Response to comment 6.6:

Fish populations in the South Fork Coeur d'Alene River vary with location in conjunction with levels of metals contamination and physical habitat conditions. The fish community above Mullan is generally healthy and is dominated by native species. The fish population declines steadily on a downstream gradient, with sculpin disappearing as soon as metals concentrations rise above ambient water quality criteria (AWQC). AWQC are the regulatory limits for protection of the aquatic environment. Fish populations from Wallace downstream through Pinehurst are greatly reduced. Metals concentrations in this stretch of the river typically range from 7x to 15x the AWQC. Fish densities are low and the resident fish are small, although conditions during high flows allow for fish migration through the area. Below Pinehurst, some recovery of the fish population occurs. This is due in part to the influx of relatively clean water from Pine Creek, and an increase in water hardness in the lower reaches of the South Fork which reduces metals toxicity (the presence of dissolved organics in this area may also help). It is important to note that the native fish community in this area is far from intact. Sculpin, native fish species that live on stream bottoms and are fed upon by large trout, are virtually absent in this area (see response to comment 6.6).

Physical habitat conditions are certainly a limiting factor for fish populations throughout

the South Fork Coeur d'Alene River, an issue that is acknowledged and addressed in the Ecological Risk Assessment (EcoRA) and Feasibility Study Report for the Basinwide RI/FS. As discussed in the EcoRA, the current habitat conditions are attributable at least in part to the secondary effects of metals contamination on physical and biological components of the ecosystem. For example, riparian vegetation throughout the South Fork has been adversely affected by high levels of metals in floodplain soils. The loss of riparian vegetation and the adverse effects on instream habitat have been well documented in the Basin-wide ecological risk assessment.

Mrs. Callabretta's trees were lost to beavers, they were not ordered to be removed.